

ZN WSH Zarządzanie 2017 (3), s. 79-90

**Oryginalny artykuł naukowy**  
**Original Article**

*Data wpływu/Received:* 10.05.2017

*Data recenzji/Accepted:* 10.06.2017/25.07.2017

*Data publikacji/Published:* 29.09.2017

*Źródła finansowania publikacji: środki własne Autorów*

**Authors' Contribution:**

- (A) Study Design (projekt badania)
- (B) Data Collection (zbieranie danych)
- (C) Statistical Analysis (analiza statystyczna)
- (D) Data Interpretation (interpretacja danych)
- (E) Manuscript Preparation (redagowanie opracowania)
- (F) Literature Search (badania literaturowe)

**DOI: 10.5604/01.3001.0010.6488**

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**ENVIRONMENTAL INSURANCE IN POLAND  
AND SELECTED EU COUNTRIES**

**UBEZPIECZENIA ŚRODOWISKOWE W POLSCE  
I WYBRANYCH KRAJACH UE**

**Abstract:** The article presents an analysis of offered ecological (environmental) insurances by insurance companies operating in Poland as an innovative tool to protect local environment. The purpose of this article is to analyse the role of insurance and reinsurance companies in managing environmental risks. The research method was an analysis of the environmental insurance offered to Polish enterprises and normative acts. The idea of ecological insurances was compared for selected EU countries and data for biggest ecological disasters. This concept helps create a source of funds to restore natural environment after damages which may occur due to human activity. Poland and Hungary are the countries with the highest number of ecological disasters but none financial protection is applied to reduce these threats.

**Keywords:** environmental, ecology, insurance, ecological (environmental) insurances.

**Streszczenie:** W artykule przedstawiono analizę oferowanych ubezpieczeń ekologicznych (środowiskowych) przez firmy ubezpieczeniowe działające w Polsce jako innowacyjnego narzędzia ochrony środowiska lokalnego. Celem tego artykułu jest analiza roli firm ubezpieczeniowych i reasekuracyjnych w zarządzaniu ryzykiem środowiskowym. Metodą badawczą była analiza ofert firm ubezpieczeniowych w zakresie ubezpieczeń środowiskowych skierowanych do przedsiębiorstw w Polsce oraz aktów prawnych. Ideę ubezpieczeń ekologicznych porównano w wybranych krajach Unii Europejskiej oraz dane dotyczące największych katastrof ekologicznych. Koncepcja powyższa pomaga tworzyć fundusze na przywrócenie środowiska naturalnego po uszkodzeniu, które może wystąpić w związku z działalnością człowieka. Polska i Węgry są krajami o największej liczbie klęsk żywiołowych, jednak mimo to nie stosuje się w tych krajach ochrony finansowej w celu ograniczenia tych zagrożeń.

**Słowa kluczowe:** środowisko, ekologia, ubezpieczenie, ubezpieczenie ekologiczne (środowiskowe)

## Introduction

Visible in recent years natural environment degradation caused by human activity is visible in all its aspects. Human beings frequently seem “to see no other meaning in their natural environment than what serves for immediate use and consumption”<sup>1</sup>. Therefore production, and growing consumption are sources of all negative changes in natural environment. Action against upcoming dangerous changes is possible only with usage certain law and financial tools, which may be used to reduce negative influence on environment or protect good quality natural goods. One of this instrument are so called ecological insurances, which will be discussed in this paper.

The ecological insurance is an important economic-financial instrument for environmental protection. It aims at improving the condition of the environment as

<sup>1</sup> John Paul II (pope), Encyclical Letter *Redemptor Hominis* (4 March 1979).[http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf\\_jp-ii\\_enc\\_04031979\\_redemptor-hominis.html](http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_04031979_redemptor-hominis.html) [access: 5.04.2017].

well as impacting the economic growth of the countries<sup>2</sup>. Moreover, increasingly restrictive environmental legislation, especially EU's in biodiversity conservation concepts and stringent corrective action requirements, are contributing to the building of ecological awareness. This means increasing the level of liability for environmental damage also for entities that have not changed their business profile.

The role of insurance and reinsurance companies in the management of environmental threats has been presented in this article. In this article, a descriptive method was used. Ecological insurance definition was identified and described its meaning. In further part a comparative analysis was used, to indicate main differences between offered insurance products. The authors interchangeably use the concept of environmental insurance, ecological insurance in this study.

## 1. The essence of environmental insurance

In the literature, there are many definitions of ecological (environmental) insurance<sup>3</sup>. For the purposes of this article we assume that the ecological insurance is "a form of business insurance that covers companies and protect them from uninsured environmental liabilities they may face. Standard public liability policies offer limited environmental cover and, therefore, questionable protection for pollution liabilities. In addition, new environmental legislation increases the range of risks and responsibilities for companies"<sup>4</sup>. On the other hand, another definition of environmental (ecological) insurance indicates that environmental insurance is "is an insurance of civil responsibility of enterprises, institutions and organizations (insurers) for damage caused by activities that creates a highly hazardous"<sup>5</sup>. Hence, environmental insurance covers the cost of restoring damage caused by environmental accidents, such as pollution of land, water, air, and biodiversity damage.

Until 1966, insurance policies did not deal with pollution issues. The insurance industry's first reaction to the unknown loss potential associated with new forms of pollution liability was to avoid the risk. After the 1966 Santa Barbara oil spill and the passage of the first modern federal environmental legislation, however, insurers added "pollution exclusions" ranging from the now notorious "sudden and accidental" exclusion to several kinds of "absolute" exclusions to CGL and other liability policies. Hence, the exclusions created a market for environmentally specific insurance products. In the 1990s, the financial risks and costs associated with pollution

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<sup>2</sup> M. Rutkowska-Podołowska, P. Kozyra, *Ubezpieczenia ekologiczne jako instrument finansowy w ochronie środowiska*, Prace Naukowe Akademii Ekonomicznej im. Oskara Langego we Wrocławiu. 2007, nr 1190, s. 460.

<sup>3</sup> The authors use interchangeably the terms ecological insurance and environmental insurance.

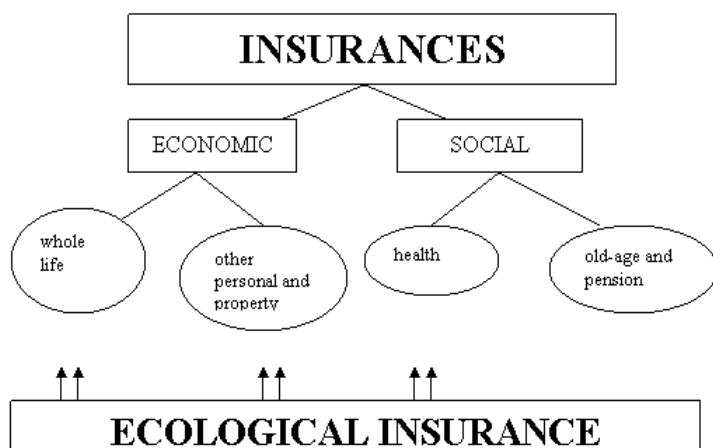
<sup>4</sup> MBA Brief Concept Definitions: *Environmental Insurance* [http://www.mbabrief.com/what\\_is\\_environmental\\_insurance.asp](http://www.mbabrief.com/what_is_environmental_insurance.asp) [access: 15.03.2017].

<sup>5</sup> Ecological insurance, [http://ebrary.net/3036/environment/ecological\\_insurance](http://ebrary.net/3036/environment/ecological_insurance) [access: 15.03.2017].

and polluted properties became increasingly predictable because of advancements in investigation and remediation technologies and promulgation of standardized and risk-based remediation goals. Therefore, the new forms of environmental insurance have been formed in this time<sup>6</sup>. Currently, eco-insurance is increasingly (though still too rarely) used. This is related to the current legislation (described more broadly below). The place of environmental insurance is presented on figure 1.

Figure 1. Environmental (ecological) insurance versus general categories of insurances comparison

Rysunek 1. Porównanie środowiskowych (ekologicznych) ubezpieczeń z ogólnymi kategoriami ubezpieczeń



Source: M. Rutkowska-Podołowska, P. Kozyra, *Ubezpieczenia ekologiczne jako instrument finansowy w ochronie środowiska*, Prace Naukowe Akademii Ekonomicznej im. Oskara Langego we Wrocławiu 2007, nr 1190, s. 462.

According to issued on 13<sup>th</sup> of April 2007 Polish Normative Act “About prevention of damages in natural environment and its restoration<sup>7</sup>. The entity responsible for environmental damage is obliged to restore the environment to the pre-injury state. The complexity of this process involves the need to prepare expert reports, carry out corrective actions, and monitor the state of the environment after the damage. It is a long-term process, which requires, first and foremost, large financial inputs, full engagement, and expert knowledge. The analysis focuses on issues related to two different risks associated with the environment:

<sup>6</sup> The Mortgage Banking Association Environmental Insurance Task Force, January 2004, [http://apps.mba.org/files/CREF/committees/LoanOrigination/Environmental\\_Insurance\\_White\\_Paper.pdf](http://apps.mba.org/files/CREF/committees/LoanOrigination/Environmental_Insurance_White_Paper.pdf) [access: 15.04.2017].

<sup>7</sup> Ustawa z dnia 13 kwietnia 2007 r. o zapobieganiu szkodom w środowisku i ich naprawie, Dz.U. 2007 nr 75 poz. 493, z późn. zm.

- The environmental liability risk (i.e. the financial risk associated with environmental pollution and contamination).
- The natural catastrophe risk (i.e. the risk of major damages in connection with the occurrence of natural disasters, such as earthquakes, floods or other extreme environmental conditions).

## 2. Environmental insurance in Poland

In Poland, in the current legal environment, environmental insurance is not regulated in any separate way and the responsibility for possible damage is spread among many legal acts. The most important of the mare:

- Decree Law from 22 May 2003 on Insurance Activity;
- Decree Law from 27 April 2001 on Environmental Protection Law;
- The Civil Code, legal regulations in art. n° 415 and n° 822<sup>8</sup>;
- Directive 2004/35 / EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (OJ L 143, 30/04/2004 p. 56);
- The Act of 13 April 2007 on the Prevention and Remediation of Environmental Damage, 2007 No. 75 pos. 493, as later amended;
- Ordinance of the Minister of the Environment of 30 April 2008 on criteria for assessing the occurrence of environmental damage (Journal of Laws No. 82 item 501);
- Ordinance of the Minister of the Environment of 4 June 2008 on types of corrective actions as well as conditions and methods of their operation (Journal of Laws No. 103, item 664).

In the liability insurance for the damage caused in the environment the potential victim is always the same: it is the natural environment, or the common good. Therefore, in accordance with Directive 2004/35 / EC, it is important that “restoration of the proper state of the environment should be carried out in an effective manner that ensures that the relevant objectives are achieved. Therefore, a common framework should be defined, the correct application of which will be supervised by the competent authorities“.

Only a few insurance companies have ecological insurance for enterprises in their offer like: AIG, Warta, Eurobrokers, AvivaGeneral Insurance Company, AX, Ergo Hestia Gothaer in Poland (table 1):

<sup>8</sup> M. Rutkowska, N. Szczygieł, *Ecological insurance in light of environmental investments: the polish insight*, [in:] ICEI 2014: proceedings of the 2nd International Conference on European Integration, Ostrava, Czech Republic, May 15-16, 2014 / [Eds. I. Honová et. al.]. Ostrava: Technical University of Ostrava 2014, s. 588-595.

Table 1. Comparison of the selected insurance companies in Poland which offer environmental insurances

Tabela 1. Porównanie wybranych firm ubezpieczeniowych w Polsce oferujących ubezpieczenia środowiskowe

Insurance Company	AIG	Warta	Eurorokers	Aviva	AXA	Ergo Hestia	Gothaer
Product	Environmental insurance	Civil responsibility insurance for enterprise entities	Insurance for environmental damage	Civil responsibility insurance - risk extension: liability for environmental damages	Civil responsibility for companies	civil responsibility insurance liability for damages in environment caused by the company	Civil responsibility insurance -extended package
Protection scope	Comprehensive with the ability to adapt it to individual activities and to meet the needs of businesses of any size; Coverage that has so far remained unavailable, based on standard liability insurance or property insurance policies	Damage caused by the ingress of chemical substances into the air of water or soil	The insurer will indemnify the insured for any unexpected and unintended damage for which the insured will be legally obliged to pay as a result of claims for personal damage, damage to property or cost of cleaning resulting from emissions caused by the carriage or emission caused by the possession or use of the means of transport, in particular the emissions following the motor transport accident		No data	Costs of preventive actions; Costs of corrective actions; Damages resulting from emergency activities and the consequence of slow and gradual events; Responsibility for damage to the environment in the land, regardless of who they own; Damage to protected species and protected natural habitats; Environmental damage, without limitation to damage caused by emissions; Environmental damage that originated in Poland and cross-border injury;	Liability for damages arising directly or indirectly from the emission, leakage, release or other form of leakage into the air, water or soil of any hazardous substance Statutory contractual civil liability of the policyholder for both personal and property damage and the financial consequences of those damages arising from the conduct of his business and property and the risks associated with the placing on the market of the defective product

Source: own elaboration based on insider insurance companies' data from 2016.

Although the number of environmental insurance policies sold every year is growing, the capabilities of the insurance distribution system in the coverage line are not growing as fast as the rapidly expanding need for environmental insurance coverage in new classes of business<sup>9</sup>.

The main reasons for the poor market penetration of environmental insurance are as follows:

- Insurance effects brokers are not technically proficient in the unique aspects of environmental risks.
- The effects of pollution exclusions in property and liability insurance policies and the need for environmental insurances are not well understood by insurance practitioners.
- The plethora of complex, non-standardized environmental insurance policies make it difficult to match environmental insurance policies to the needs of insurance buyers.

The amount of environmental damage, despite growing awareness of environmental responsibility, continues to increase. The liability arising from environmental pollution cannot be equated solely with civil liability, as it is primarily a public-law liability, e.g. administrative liability. It is shaped by a number of administrative law provisions, under which the obligation to cover costs arises independent of the fault of the entrepreneur, under the “polluter pays” principle.

### 3. Ecological insurance in selected countries

The first pan-European instrument for dealing with environmental liability was Environmental liability and the Council of Europe The Lugano Convention<sup>10</sup>. In addition to settling liability for the traditional classes of damage (harm to health or property, financial loss), it also addressed liability for primary environmental damage. However, the application of strict liability is limited: first, to the operators of facilities and disposal sites which pose a danger to the environment; and second, to the consequences of activities involving dangerous substances and organisms. According to the Lugano Convention's Art 2 no. 7, “Damage” means:

- loss of life or personal injury;
- loss of or damage to property other than to the installation itself or property held under the control of the operator, at the site of the dangerous activity;
- loss or damage by impairment of the environment insofar as this is not considered to be damage within the meaning of sub-paragraphs a or b above provided that compensation for impairment of the environment, other than for loss of profit

<sup>9</sup> IRMI, *A Big Picture on Environmental Insurance*, <https://www.irmi.com/articles/expert-commentary/environmental-insurance-overview> [access: 5.04.2017].

<sup>10</sup> More formally known as the *Convention on Civil Liability for Damages Resulting from Activities Dangerous to the Environment* of 21 June 1993, available at <http://conventions.coe.int/Treaty/en/Treaties/Html/150.htm> [access: 5.04.2017].

from such impairment, shall be limited to the costs of measures of reinstatement actually undertaken or to be undertaken;

- the costs of preventive measures and any loss or damage caused by preventive measures, to the extent that the loss or damage referred to in sub-paragraphs a to c of this paragraph arises out of or results from the hazardous properties of the dangerous substances, genetically modified organisms or micro-organisms or arises or results from waste.

According to Art 2 para 10 "Environment" includes:

- natural resources both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors;
- property which forms part of the cultural heritage; and
- the characteristic aspects of the landscape<sup>11</sup>.

Very important is that to date, however, the Lugano Convention has not entered force. Nine states have signed the Lugano Convention, but none has ratified it<sup>12</sup>. However, the ratification by three countries is necessary for the convention to go into force.

The amount of environmental damage in EU countries is governed by Directive 2004/35 / EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage. This document has set minimum standards for environmental protection uniform for each member state, including the principle of liability that "polluter pays". Thanks to this, environmental administrations could enforce the costs of preventive and corrective actions against those responsible for environmental damage. Currently, there are products available in the EU that guarantee environmental liability, but without a uniform standard. Some insurance companies offer them as extensions under OC business insurance, and part as standalone insurance products. In table 2 the cost of corrective actions after environmental damage have been presented, based on Eurostat statistics in 2016. Presented data describe only 10% of all cases which were reported, however they show potential responsibility for this kind of damages.

<sup>11</sup> According the Lugano Convention's Art 2 para 7, "Damage" and Art 2 para 10 "Environment".

<sup>12</sup> European Commission, Lugano Convention, <http://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?redirect=true&treatyId=7481> [access: 23.04.2017].



Table 2. Known costs of corrective actions after damages in natural environment based on Eurostat data for 2016

Tabela 2. Znane koszty działań naprawczych skutków katastrof w środowisku naturalnym na podstawie danych Eurostatu za 2016 rok

	The total cost of the reported corrective actions	Number of damages with reported costs of corrective actions	Cost calculated for single damage
Damages with the two largest (Kolontar in Hungary and Moerdijk in the Netherlands)	179 533 079 €	142	1 264 317 €
Damages without the two largest (Kolontar in Hungary and Moerdijk in the Netherlands)	49 533 079 €	140	353 807 €

Source: Eurostat 2016.

According to the latest report of the European Commission of 14 April 2016, on the implementation of the Environmental Liability Directive (ELD) <sup>13</sup>With regard to the prevention and repair of the damage caused, the average cost of the company's remedial actions amounted to 175 thousand zlotys. More than 40% of cases concern companies from Poland. The greatest damage was reported in:

- the 3 biggest ecological damages in the EU occurred in the Netherlands, Greece and Hungary;
- in years 2007-2013 more than 500 environmental damage was recorded in Poland;
- in 2015, the Polish fire brigade intervened in 7310 times due to the occurrence of local chemical or ecological hazards.

Moreover, some member states of EU (according to the EC report from April 2007 to April 2013) reported around 1245 confirmed cases of environmental damage. Unfortunately, the greatest damage is appointed to Hungary and Poland - 563 and 506 cases, respectively. Most of the remaining cases were reported by six more member states: Germany (60), Greece (40), Italy (17) and Latvia, Spain and the United Kingdom.

It should be stressed that some countries, such as Bulgaria, Czech Republic, Greece, Hungary, Portugal, Romania, Slovakia, Spain and Lithuania have decided to introduce compulsory insurance. This is not a universal obligation. In most cases, it was covered only by entrepreneurs carrying out activities posing a risk of environmental damage, listed in Annex III to the Directive.

<sup>13</sup> Environmental Liability Directive (ELD)2004/35/EC accepted in territory EU in 2009.

## Conclusions

Taking the above into account, the authors have adopted the following conclusions:

There is a strong need for environmental insurance is greater than in the previous centuries. Environmental risk is developing into new sectors of the economy and the insurance distribution system is not prepared or motivated to operate. Furthermore, most of enterprises are uninsured on both property and liability insurance policies for losses arising from a broad spectrum of potential contaminated losses.

It should also be emphasized that individualized environmental insurance provides comprehensive risk protection. Environmental liability insurance can help cover the polluter's costs, but primarily far more important: it can help prevent pollution.

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**The contribution of particular co-authors to preparation of the paper:**

**Wkład poszczególnych autorów w przygotowanie publikacji:**

Małgorzata Rutkowska – 40%, Adam Sulich – 30%, Jolanta Pakulska – 30%.

